## Chapter 5

### **DEPOT WORKLOAD AND CAPACITY**

## 5.1 Depot Repair Workload and Capacity Forecasting

#### a. General:

- (1) It is essential that the workloading of Depot Level Repairables (DLRs) be accurately forecast and tracked. The managers of NAVSEA and NAVICP DLR programs require knowledge of repair capabilities and capacities to support their programs, and the Commanders of NAVSEA industrial sites must be appraised of anticipated workload at their activities. The principal focal point in NAVSEA for the collection and dissemination of capability, capacity, and workloading data is SEA 04L43, the Program Manager for Depot Maintenance (PMDM).
- (2) Depot repair workloading and capacity forecasting is required to ensure that capability and capacity is sufficient to support the repair of DLRs, to optimize the use of existing depot repair resources, and to provide a basis for repair budget submission.
- b. Facility Capacity Forecasts. NAVSEA facilities managers will provide the PMDM with capacity forecasts for industrial activities under their cognizance when significant variations in capacity are anticipated. Moreover, managers are encouraged to provide amplifying information at any time to ensure optimum utilization of their facilities.
- c. Depot Workload Conference. Twice a year, in February and August, DOP and NAVICP representatives will meet at NAVICP Mechanicsburg to negotiate workloads based upon projected requirements prepared by Item Managers (IMs). During these conferences DOPs are expected to discuss their capabilities to respond to potential workload taskings for specific line items. They must be prepared to address:
- (1) The capability and capacity to perform the projected repairs and all associated testing.
  - (2) Any capacity constraints, either actual or anticipated.
- (3) The repair cost, identified either as a fixed price offer or a cost reimbursable estimate.
  - (4) The estimated Repair Turn Around Time (RTAT).
  - (5) The estimated man-hours to repair.

- (6) Proposed solutions to any capability or capacity shortfall that may be identified including capacity considerations related to supply support functions, e.g., packaging and preservation.
  - d. Depot Level Repairable Production Reports:
- (1) Periodicity. The DOP shall prepare a monthly DLR Production Report and forward it within the first 10 days of the month following the reporting period. Data within the report is arranged by funding document, and for each funding document, by NSN. Attachment 1, NAVSEA 4419/5, can be used as a format guide. Automated reports are encouraged.
  - (2) Distribution.
- (a) For NAVSEA funded work, copy to the IM of the NAVSEA material.
  - (b) For Depot Maintenance Interservice work, copy to Service POC.
  - (c) For NAVICP funded work, copy to NAVICP-Mechanicsburg.
  - (3) Preparation Guidance.
- (a) Each item will be included in the first monthly report that is submitted following acceptance of funding for repair of the item. Once an item appears in a report, it must continue to be included until the repairs and financial accounting are complete, or if deleted, the last report in which it is included must explain the deletion in the "Remarks" block (19). To indicate that repairs and financial accounting have been completed, use the term "Closed" in the "Remarks" block (19).
- (b) Under "Quantity Authorized" (10), if there have been amendments which decreased the quantity authorized, enter the resultant decreased quantity and explain the reduction in the "Remarks" block (19). If there have been amendments which increase the quantity authorized, enter the data as if for an additional funding document.
- (c) In the event that the sum of the quantities shown in the fields "Quantity in Work" (12), "Quantity Complete" (13) and "Quantity BSR" (14) does not equal the number shown in the field "Quantity Authorized" (10), explain the differences in "Remarks" (19). Typical explanations may include: wrong material received, "G" condition material, items beyond economical repair awaiting disposition instructions, or items not available to be inducted.
- (d) Under "% Complete" (15), two quantities, separated by a slash, are to be shown. The percentage will be in terms of expended man-hours at the end of the reporting period. The first quantity will be the percent completed during the current

reporting period; the second will be the percent complete at the end of the previous reporting period, e.g., 75/60. If there is no difference reflected between the two quantities, or if a zero percent of completion is shown and there is a "Funds Expended" (18) entry, put an explanation in "Remarks" (19).

- (e) In the "Start" (9) and "Completion" (16) date fields, enter the julian date preceded either by "P" for planned or by "A" for actual, as applicable. In the event the scheduled completion date is later than the IM's required completion date, provide an explanation in "Remarks" (19).
- (f) Under "Funds Authorized" (17), enter the amount of funding from each Project Order, Work Request, Military Interdepartmental Procurement Request or amendment authorized to be spent on each item as shown in the "Funding Document" (5). If the document does not cite a specific amount for the individual item and the funding provided will cover the estimated cost of repair, enter that estimated repair cost preceded by "E".
  - (g) In the "Funds Expended" field (18):
- 1. For fixed price work, enter the product of the unit repair price times the number of units for which repair has been completed
- 2. For cost reimbursable work, enter the product of the stabilized man-day rate times the hours of work actually performed.
- (h) In addition to direction provided above, the "Remarks" field (19) may be used for any other pertinent information, e.g., noting funds available for reprogramming; highlighting areas of concern such as problems with carcass or piece parts availability, or material which is consistently beyond economical repair.

### 5.2 Certification Procedures

Certification includes the prove-in of repair procedures and Quality Assurance Plans (QAP), and requires the rework facility to demonstrate its capability to perform rework in accordance with these procedures and plans. Detailed procedures for planning and conducting certification of DOPs selected to repair electronic systems and specific Hull, Mechanical, and Electrical equipment have been prepared in Appendix B - the Depot Certification Handbook. It documents the formation and training of the certification team, the events to be performed during the certification with the procedures to follow for each event and guidance in making conclusions and recommendations. In addition, DOPs that have documented membership in the International Organization for Standardization can submit, for review, their ISO 9000 certifications in the areas of design, development, production installation and/or servicing. ISO certification may be an acceptable alternative to the NAVSEA DOP certification process if the ISO audit is current and reflects the disciplines required by NAVSEA of its DOPs.

# 5.3 Workload Scheduling and Control

- a. NAVICP-Mechanicsburg (Code 058) will sponsor semi-annual depot maintenance workload conferences by establishing the location, agenda and scope of the meetings and by ensuring that DOPs receive the latest Eight Quarter Repair Forecast from the NAVICP IMs two to four weeks prior to the meeting date. The participants at the workload conference will normally include NAVICP IMs and repairables management personnel, Fleet and Industrial Supply Center (FISC) personnel and DOP representatives. SEA 04L43 will participate if there are significant quantities of NAVSEA repairables being workloaded. Conferences are convened approximately 60 days prior to the beginning of the workload period, and are held in August and in February.
- (1) Workload. The determination and negotiation of the workload for each NAVSEA DOP shall be accomplished through these semi-annual conferences, using the workload forecasts developed by the IMs. NAVSEA workload at commercial or interservice DOPs will be accomplished as deemed necessary through the use of DMISA review conferences or separate communications.
- (2) Candidates. In general, the repairable candidates addressed at the workload conferences are those with the greatest annual repair requirement. However, any item for which there is a repair requirement and a Not Ready For Issue (NRFI) carcass expected to be available during the time frame may be included.
- (3) Post-Conference Action. After completion of the workload conferences, NAVICP will prepare and disseminate minutes to attendees and interested parties such as the IMs who were not in attendance. Based upon information from the conferences, IMs will update the master data files with repair prices, survival rate data, etc.
- b. Repair Directives. There are three types of repair directives (document identifier "BS1") that are used to assign work to organic DOPs:
- (1) Projected Repair Requirements (NWP). NWP directives are used for workload forecast items, i.e., items with stable or predictable demands for which economic benefits can be realized by scheduling larger quantities over longer periods of time. NRFI carcasses for these items are either available or are anticipated to be available at the DOP during the repair cycle time.
- (2) Cyclic Repair Requirements (NWS). NWS directives forward repair requirements at periodic intervals (weekly, bi-weekly, or monthly). NRFI carcasses must be available at the DOP at the time the directive is issued.
- (3) Interim Repair Requirements (NWR). NWR directives are used for specific high priority (priority 1 through 5) end use requirements or for unusual or one-time repair requirements that have not been scheduled on NWS or NWP directives. NRFI carcasses must also be available at the DOP at the time the directive is issued.

- c. Associated Documents. There are two other documents associated with organic depot level repair:
- (1) Project Order/Work Request. This document provides the funding authorization to the DOP to cover the cost of the repairs authorized in the repair directive.
- (2) NRFI Redistribution Order. The redistribution order directs the shipment of NRFI carcasses from a Navy supply activity to another Navy supply activity, normally from a FISC to a DOP.
- d. Repair Scheduling. As a result of the negotiated workload conference determinations, NAVICP (and NAVSEA if necessary) will prepare quarterly DOP funding documents and NWP repair schedules in a time frame consistent with having both funds and NRFI carcasses available at the DOP but not later than the first day of the planned workload period. The repair schedules reflect authorized production and induction quantities. Non-workloaded items represent emergent repair requirements not predicted or anticipated. They are authorized on NWR or NWS documents to satisfy emergency Fleet requirements as well as those requirements that materialize on low volume or sporadic demand repairables.

#### e. DOPs:

- (1) Advanced Planning and Forecasting:
- (a) The Eight Quarter Repair Forecast is received semi-annually from NAVICP to facilitate workload planning and assist in determining the availability of the repair facilities' capacity and capability relative to required dates. The forecast can be compared with information in the historical data file, and differences noted concerning quantities, costs, capabilities and projected capabilities.
- (b) During the semi-annual workload conferences, the differences in costs, capabilities and capacities are discussed and resolved. After agreement on the workload for the next 2 to 4 quarters, material requirements are assessed, compared with existing inventories, and planned program requirements are developed. Advanced material requisitioning (usually 45 days) is executed each quarter to ensure that material is available by the start of the quarter in which the repair work is to be accomplished.
- (2) Repair Process. The DOP is authorized to induct carcasses up to the allowed quantity and to requisition the piece parts necessary to effect repair. Upon receipt of the carcasses in the shop, the following repair processes will be initiated:
- (a) Material Under Repair. A Transaction Item Report (TIR) reflecting "M" condition (material under repair) status must be submitted to the IM, indicating the specific quantity of carcasses that have been inducted into the actual repair process under the repair directive.

- (b) Beyond Economical Repair (BER). Carcasses that are determined to be BER will be returned to the holding activity, and if necessary to meet the authorized repair production quantity, additional carcasses will be requested. The BER quantity will be TIR'd to the IM reflecting "H" condition (condemned material), and will ultimately be cannibalized for usable parts and expended to disposal.
- (c) Material Awaiting Parts (AWP). If the piece parts required to effect repair are not available within 30 days, the DLR will be designated as condition code "G" (incomplete) and remitted to custody storage. A TIR will be sent to the IM reflecting the transfer from "M" condition to "G" condition. When the required piece parts are received, the repairable item will be reinducted into the repair process, and a subsequent TIR submitted reflecting the transfer from "G" back to "M" condition.
- (d) Completion of Repairs. After the shop has completed repairs and the QA Inspector has completed the final inspection, the repaired item will be preserved and packaged and taken up in condition code "A" (Ready for Issue). A TIR to the IM will reflect the transfer from "M" to "A" condition. Documentation will be affixed to the repaired unit identifying the DOP and the date of repair.
- (3) Economic Criteria for Depot Condemnation Decisions. The following criteria shall govern the decision that a repairable is BER:
- (a) Organic DOPs. At the time of induction for repair, the DOP will evaluate the condition of each item and estimate the cost of repair.
- 1. An item that is obviously BER will be condemned, transferred to "H" condition, cannibalized for usable parts, and disposed of. In the event the material is a NAVSEA 2F, 2J or 2S repairable, authorization must first be obtained from the IM.
- 2. If the estimated cost of repair is less than 75 percent of the unit price of the item, the repair will be completed. For purposes of this evaluation, the unit price to be considered will be the actual replacement price, if available. Otherwise, the standard price will be used.
- 3. If it is anticipated that the cost of repair will exceed the replacement, the DOP will stop repair of the unit involved, induct additional carcasses if they are available locally, and notify the inventory manager of the BER units for which repair was stopped. If additional carcasses are not available for induction, instructions will be requested from the inventory manager relative to repair or disposal authorization.
- (b) Commercial DOPs. Specific economic criteria for Depot condemnation decisions will be included in the repair contracts.

# NAVSEA DEPOT LEVEL REPAIRABLE MONTHLY PRODUCTION REPORT

1. TO:			2. REPORTING ACTIVITY				3. REPORT PERIOD				4. PREPARER'S SIGNATURE			
FUNDING DOCUMENT	NOMENCLATURE	NATIONAL STOCK NUMBER	LOCAL JOB ORDER NO.		QTY AUTH	CDM QTY INDUCT	QTY IN WORK	CDM QTY COMPL	CDM QTY BSR	% COMPL	COMPL DATE	AUTU	CDM FUNDS EXPEND	REMARKS
5	6	7	8	9	10	11	12	13	14	15	16	17	18	19

NAVSEA 4419/5 (8-91)
ATTACHMENT 1
CHAPTER 5